## Amendments to the Claims

Please cancel claims 1-20 without prejudice. Please add new claims 21-44 as shown below in the list of claims.

## **List of Claims**

- 21. (New) A process for preparing 2-amino-4,6-dichloro-5-formamidopyrimidine from 2,5-diamino-4,6-dihydroxypyrimidine, or a salt or tautomeric form thereof, comprising:
  - a) reacting said 2,5-diamino-4,6-dihydroxypyrimidine, salt or tautomeric form with a chlorinating agent and a formamide of formula (I)

$$R^1$$
 $N \longrightarrow R^2$ 
 $I$ 
 $O$ 

wherein

 $R^1$  and  $R^2$  are each independently: a  $C_1$ - $C_4$ -alkyl radical; or are joined together to form the ring - $(CH_2)_n$ - where n is an integer from 4 to 6; or together form the ring - $(CH_2)_2$ - $(CH_2)_2$ -;

wherein the reaction is carried out without the addition of a solvent and at a temperature of from 50 to 130°C;

- b) reacting the product produced in the reaction of step a) with water at a temperature of from 0 to 100°C and then adjusting the pH to between 1.0 and 6.0 with an inorganic base; and
- c) hydrolyzing the aqueous reaction mixture produced in step b) at a temperature from 70 to 120°C to give 2-amino-4,6-dichloro-5-formamidopyrimidine.

- 22. (New) The process of claim 21, wherein the starting material used is 2,5-diamino-4,6-dihydroxypyrimidine in the form of a hemisulfate, hydrochloride monohydrate or as an anhydrous hydrochloride.
- 23. (New) The process of claim 21, wherein the starting material used is anhydrous 2,5-diamino-4,6-dihydroxypyrimidine hydrochloride.
- 24. (New) The process of claim 21, wherein said chlorinating agent is an acid chloride.
- 25. (New) The process of claim 24, wherein said chlorinating agent is selected from the group consisting of phosgene; oxalyl chloride; chloromethylenedimethylammonium chloride; thionyl chloride; sulfuryl chloride; phosphorus trichloride; phosphorus pentachloride; and phosphorus oxychloride.
- 26. (New) The process of claim 21, wherein the formamide of formula (I) is first reacted with said chlorinating agent and 2,5-diamino-4,6-dihydroxypyrimidine is then added.
- 27. (New) The process of claim 21, wherein the formamide of formula I is selected from the group consisting of: N,N-dimethylformamide; N-formylpyrrolidine; N-formylpiperidine; N-formylmorpholine; and N,N-dimethylformamide.
- 28. (New) The process of claim 21, wherein from 1.0 to 5.0 mol of formamide of formula (I) are used per mole of 2,5-diamino-4,6-dihydroxypyrimidine.
- 29. (New) The process of claim 28 wherein from 3.0 to 7.0 mol of chlorinating agent are used per mole of 2,5-diamino-4,6-dihydroxypyrimidine.
- 30. (New) The process of claim 21, wherein the reaction step a) is carried out within a temperature range of from 70 to 110°C.
- 31. (New) The process of claim 21, wherein the inorganic base used in step b) is a base which forms soluble chloride salts.

- 32. (New) The process of claim 21, wherein the inorganic base used in step b) is selected from the group consisting of: sodium hydroxide solution; sodium hydroxide; sodium carbonate; sodium hydrogencarbonate; potassium hydroxide solution; potassium hydroxide; potassium carbonate; and potassium hydrogencarbonate.
- 33. (New) The process of claim 32, wherein the inorganic base used in step b) is sodium hydroxide solution.
- 34. (New) The process of claim 21, wherein from 2 to 3 mol of inorganic base are used per mole of chlorinating agent.
- 35. (New) The process of claim 21, wherein, in the neutralization in step b), pH is adjusted to between 2.0 and 5.0.
- 36. (New) The process of claim 35, wherein, in the neutralization in step b), pH is adjusted to between 3.0 and 4.0.
- 37. (New) The process of claim 36, wherein the reaction product from step a) is reacted at a temperature of from 20 to 60°C.
- 38. (New) The process of claim 37, wherein the hydrolysis in step c) is carried out at a temperature of 70-120°C.
- 39. (New) The process of claim 37, wherein the hydrolysis in step c) is carried out at a temperature of 80 to 100°C.
- 40. (New) The process of claim 21, wherein step c) is carried out in the absence of an added solvent.
- 41. (New) The process of claim 21, wherein said process is carried out without the isolation of intermediates, as a one-pot reaction.

- 42. (New) A process for preparing purine derivatives, comprising the process steps of claim 20, and further comprising the conversion of 2-amino-4,6-dichloro-5-formamidopyrimidine to a purine derivative.
- 43. (New) A process for preparing an active pharmaceutical ingredient, comprising the process steps of claim 40 and further comprising the conversion of said purine derivative to said active pharmaceutical ingredient.
- 44. (New) The process of claim 43, wherein said active pharmaceutical ingredient is an antiviral medicament.
- 45. (New) The process of claim 44, wherein said antiviral medicament is a medicament for the treatment of AIDS.